



# **Dunkirk Town Center Master Plan and Zoning Update Public Informational Meeting**

Virtual Meeting  
December 6, 2021

# Agenda



1. Welcome and Introductions
2. Overview of Update Process
3. Master Plan Focus Areas & Survey Highlights
4. Informational Presentations
5. Questions and Answers
6. Next Steps
7. Closing Remarks, Thank You, and Adjourn

# What Will the Presentations Cover?

- a. Economic Vitality: “How do businesses make location decisions?” – Danita Boonchaisri, Acting Director, Calvert County Economic Development
- b. Land Use/Water Resources: “Septic Systems: How they work and how to care for them” – Dr. Andrew M. Lazur, State Extension Specialist-Water Quality, University of Maryland Extension
- c. Land Use/Water Resources: “What is the status of Dunkirk Town Center’s environmental health?” – Matthew Cumers, Environmental Health Director, Division of Environmental Health, Calvert County Health Department
- d. Transportation: “What is Calvert County doing to improve walking and bicycling in the Dunkirk Town Center and vicinity?” – Tamara Blake-Wallace, Principal Planner, Calvert County Planning & Zoning Department

# Calvert County Town Centers

Town of North Beach

Town of Chesapeake Beach

Dunkirk

Owings

Huntingtown

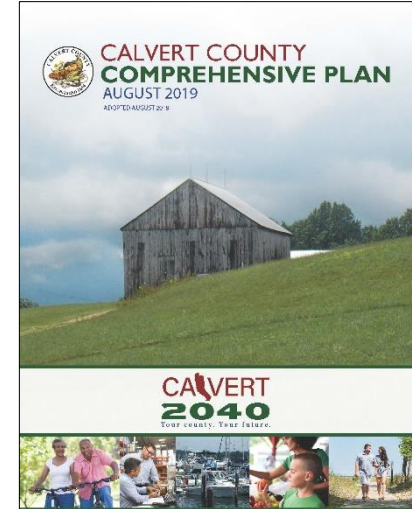
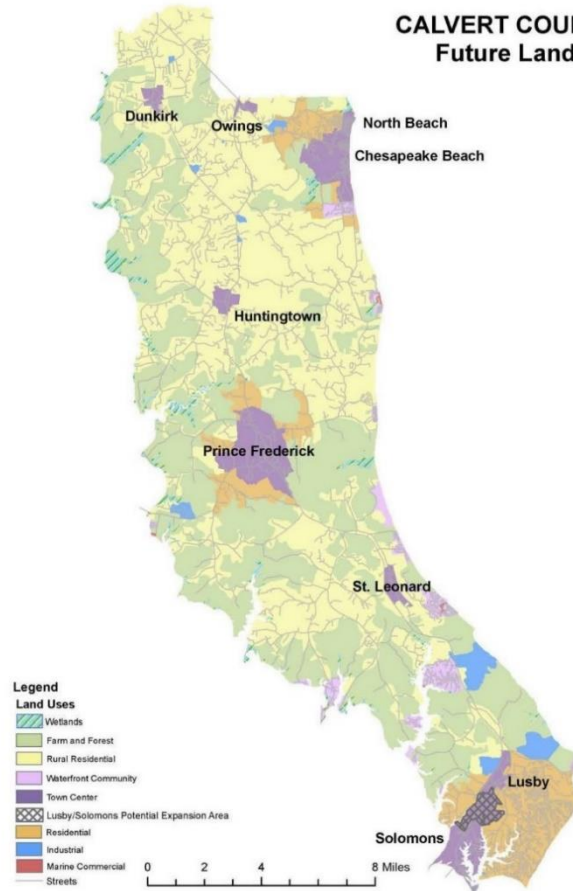
Prince Frederick

St. Leonard

Lusby

Solomons

CALVERT COUNTY, MD  
Future Land Use



*Calvert County  
Comprehensive Plan,  
adopted August 2019*

We are  
here

# Dunkirk Town Center Master Plan Update Process

## Identify Issues

- Staff preparation
- Community outreach
- Public meetings

Spring 2021 - Winter 2021/2022

## Develop Plan

- Public meetings
- Draft plan
- Public comment period
- Planning Commission review

Winter 2021/2022  
– Spring 2022

## Adoption

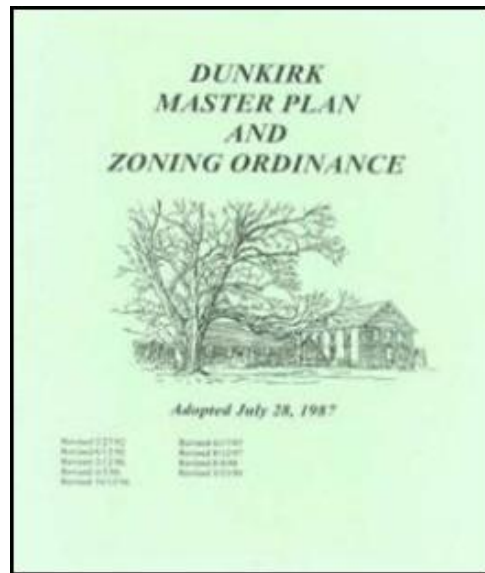
- Planning Commission Public Hearing/Approval Recommendation
- Board of Calvert County Commissioners Review/Public Hearing
- Adoption

Summer 2022

Preliminary work on updating the zoning regulations would begin mid-way through the master plan update process.

# Why Update the Master Plan?

- Ensure the visions for the Town Center are still relevant – master plan was adopted in 1987
- Economic development trends, job creation, and retail
- Emerging issues – transportation, new recreation park, etc.
- Calvert County Comprehensive Plan updated in 2019
- Calvert County Transportation Plan updated in 2020



Adopted 1987

# Close up of Future Land Use Map



## Legend

### Land Uses

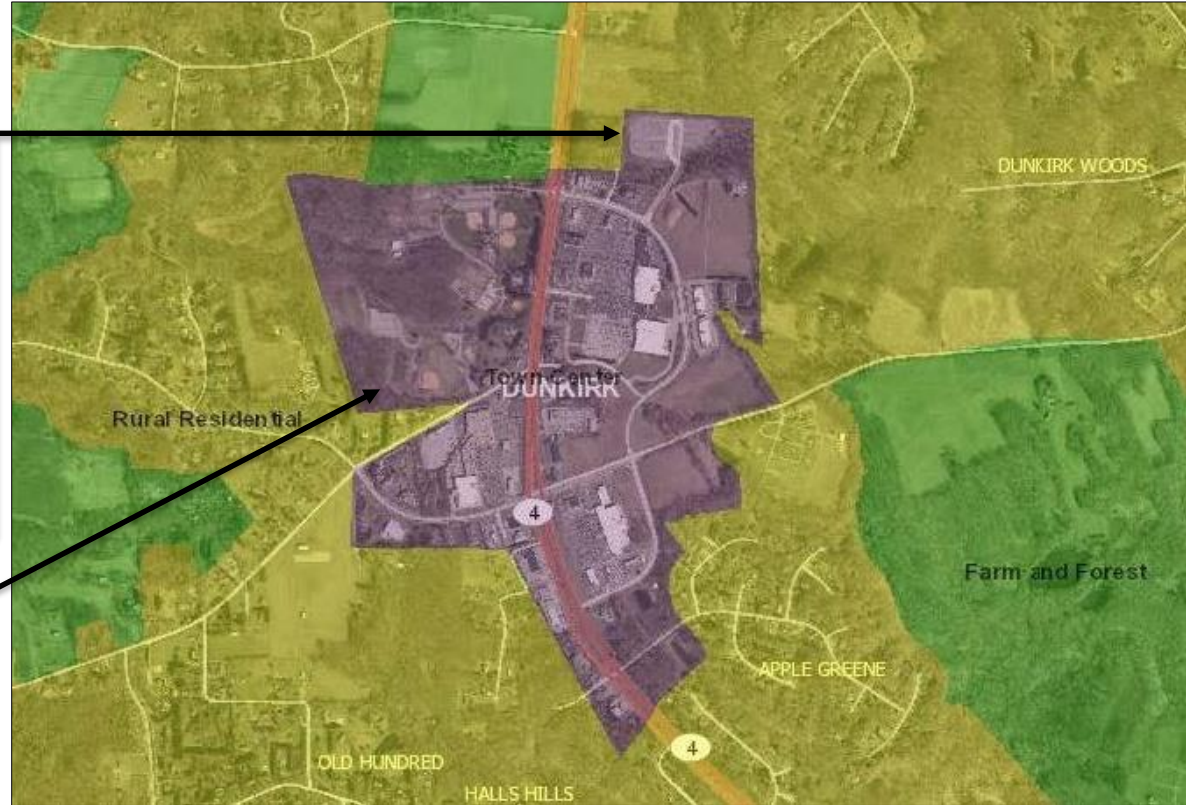
- Wetlands
- Farm and Forest
- Rural Residential
- Waterfront Community
- Town Center
- Lusby/Solomons Potential Expansion Area
- Residential
- Industrial
- Marine Commercial
- Streets



# Dunkirk Town Center

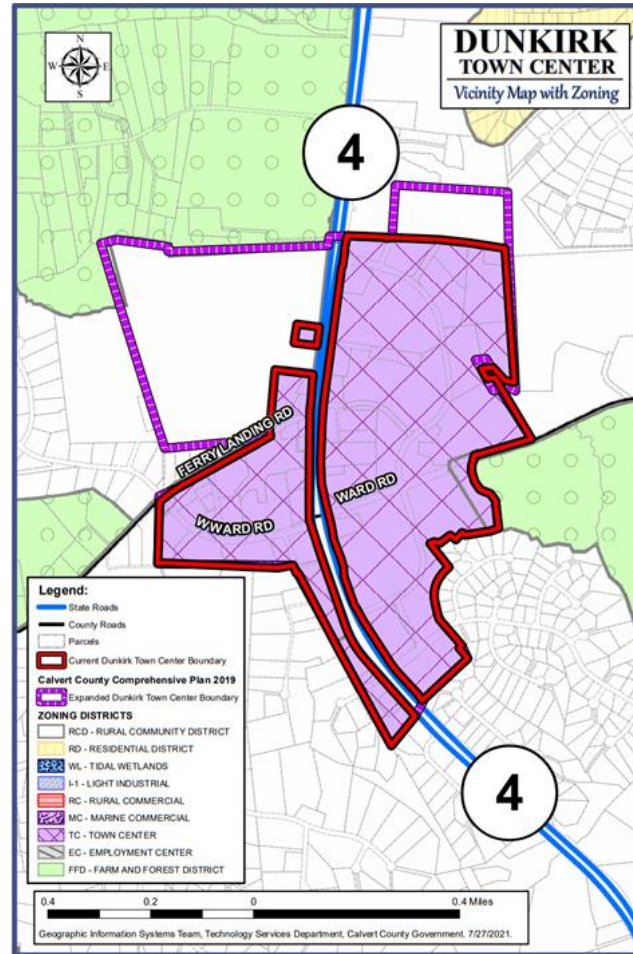
## Calvert County Comprehensive Plan Future Land Use

Expands the Town Center by  
adding the  
Park & Ride  
and  
Dunkirk District Park



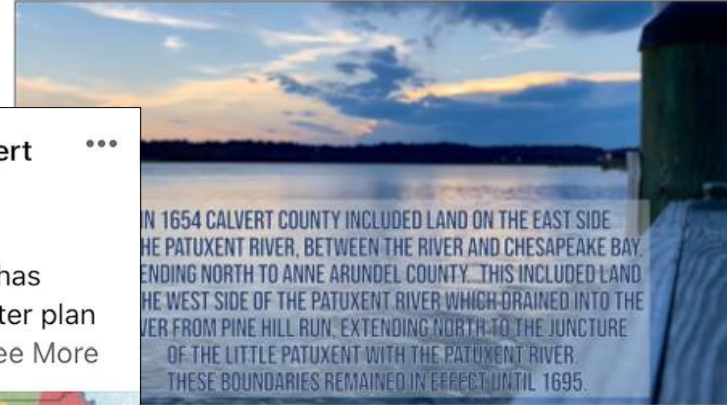
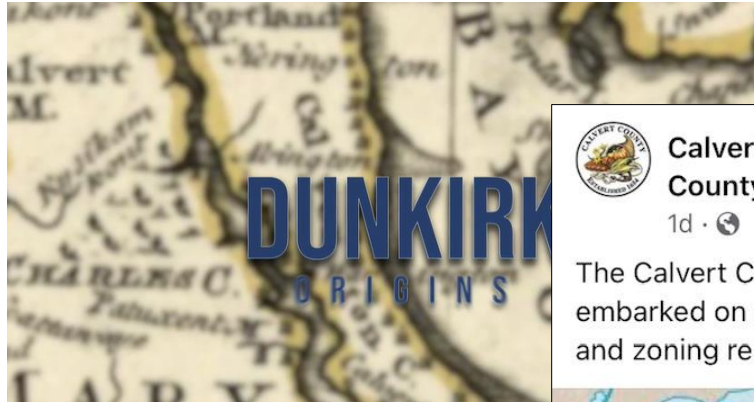


# Dunkirk Town Center Map with Zoning



# Public Outreach

## Dunkirk Informational Videos



IN 1654 CALVERT COUNTY INCLUDED LAND ON THE EAST SIDE OF THE PATUXENT RIVER, BETWEEN THE RIVER AND CHESAPEAKE BAY, EXTENDING NORTH TO ANNE ARUNDEL COUNTY. THIS INCLUDED LAND ON THE WEST SIDE OF THE PATUXENT RIVER WHICH DRAINED INTO THE RIVER FROM PINE HILL RUN, EXTENDING NORTH TO THE JUNCTURE OF THE LITTLE PATUXENT WITH THE PATUXENT RIVER. THESE BOUNDARIES REMAINED IN EFFECT UNTIL 1695.



- Calvert County Public Schools
- Calvert County Chamber of Commerce
- Calvert County Commission for Women
- Calvert County Department of Community Resources
- Calvert County Department of Economic Development
- Calvert County Department of Finance & Budget
- Calvert County Department of Human Resources
- Calvert County Department of Parks & Recreation
- Calvert County Health Department, Environmental Health
- Calvert County Family Network
- Calvert Library
- Concerned Black Women of Calvert Count
- Dunkirk Area Concerned Citizens
- Dunkirk Baptist Church
- Dunkirk Warriors
- Homeowners Association – Bay Country Estates
- Homeowners Association – Cavalier Country
- League of Women Voters – Calvert County
- Moms of Northern Calvert County
- Smith's Purchase Neighborhood
- Smithville United Methodist Church

# Project Webpage

## Frequently Asked Questions & Answers



[Prince Frederick Town Center Master Plan Update](#)

[Dunkirk Town Center Master Plan and Zoning Update](#)

[Home](#) • [Navigation](#) • [Planning & Zoning](#) • [Town Center Master Plan Update](#) • [Dunkirk Town Center Master Plan and Zoning Update](#)

## Dunkirk Town Center Master Plan and Zoning Update

### Dunkirk Town Center Master Plan Update Informational Meeting

Monday, Dec. 6, 2021 at 7 p.m.

*This meeting will be virtual*

The Calvert County Department of Planning & Zoning, on behalf of the Calvert County Planning Commission, will hold an informational public meeting as part of the Dunkirk Town Center Master Plan and Zoning Update. Planning & Zoning staff will provide an overview of the update process and master plan focus areas and share highlights from the Dunkirk Survey #2 and Photo Survey. Presentations will concentrate on economic vitality, land use/water resources, and bicycling and walking.

Those wishing to participate in the virtual meeting must register in advance before 6:30 p.m. Monday, Dec. 6. Click below to register.

[Click here to register for the meeting](#)

People are invited to submit questions in advance of the meeting by emailing [TownCenterUpdate@calvertcountymd.gov](mailto:TownCenterUpdate@calvertcountymd.gov). Participants will have the opportunity to submit written questions during the meeting.

### Other Meeting Information

#### July 15, 2021 Survey Results Meeting

- [Agenda](#)
- [Slide Show \(map legend corrected on slide #9, July 28, 2021\)](#)
- [Video of Meeting](#)
- [Breakout Group Discussion Notes](#)

#### June 2, 2021 Master Plan Kick-off Virtual Meeting

- [Agenda](#)
- [Slide Show](#)
- [Video of Meeting](#)
- [Poll/Survey Questions & Answers](#)

#### May 11, 2021 Liaison Meeting

- [Agenda](#)
- [Slide Show](#)

### Frequently Asked Questions & Answers

[Questions & Answers](#)

### Contact Us

#### Ruth Davis-Rogers

Planner II / Long Range Planning /  
Town Centers

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Phone: 410-535-1600, ext. 2335

#### Jenny Plummer-Welker, AICP

Long Range Planner

[Email: Jenny Plummer-Welker](mailto:Jenny.Plummer-Welker@calvertcountymd.gov)

Phone: 410-535-1600, ext. 2333

### Helpful Links

To view previous Planning Commission meetings please click on the following link: [Meetings on Demand](#)

Planning Commission Meetings with Presentations Related to Master Plan:

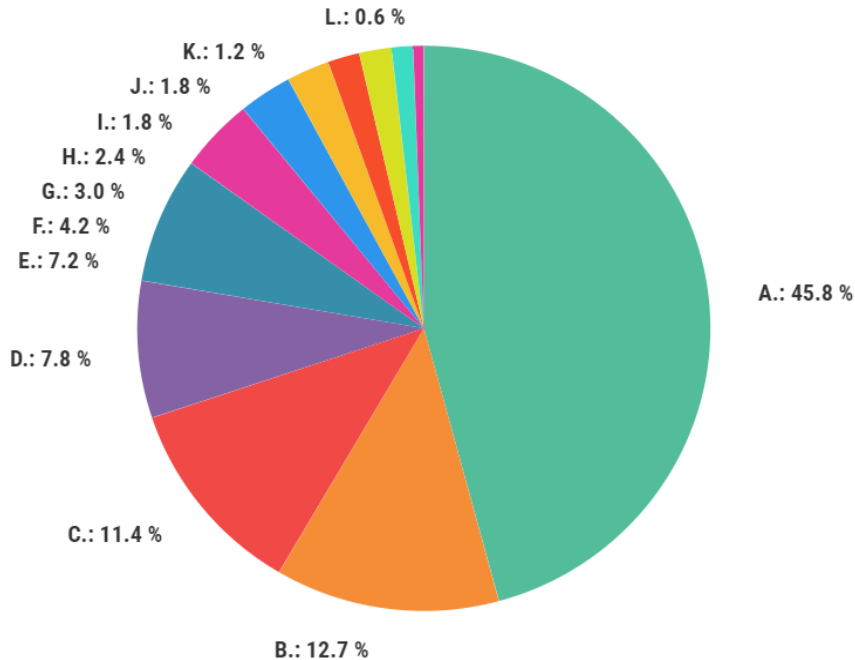
- November 19, 2021
- October 27, 2021
- October 20, 2021
- September 15, 2021
- August 25, 2021
- July 21, 2021
- June 16, 2021
- May 19, 2021
- April 21, 2021
- March 17, 2021
- February 17, 2021
- January 20, 2021
- December 9, 2020
- November 18, 2020
- October 21, 2020
- September 16, 2020
- August 19, 2020
- June 17, 2020
- May 20, 2020
- February 19, 2020
- January 15, 2020
- October 16, 2019
- September 18, 2019

# Focus Areas and Highlights of Dunkirk Town Center Surveys





# 1. The Dunkirk Town Center is the "gateway" to Calvert County. What is your vision for the Dunkirk Town Center in 10-20 years?

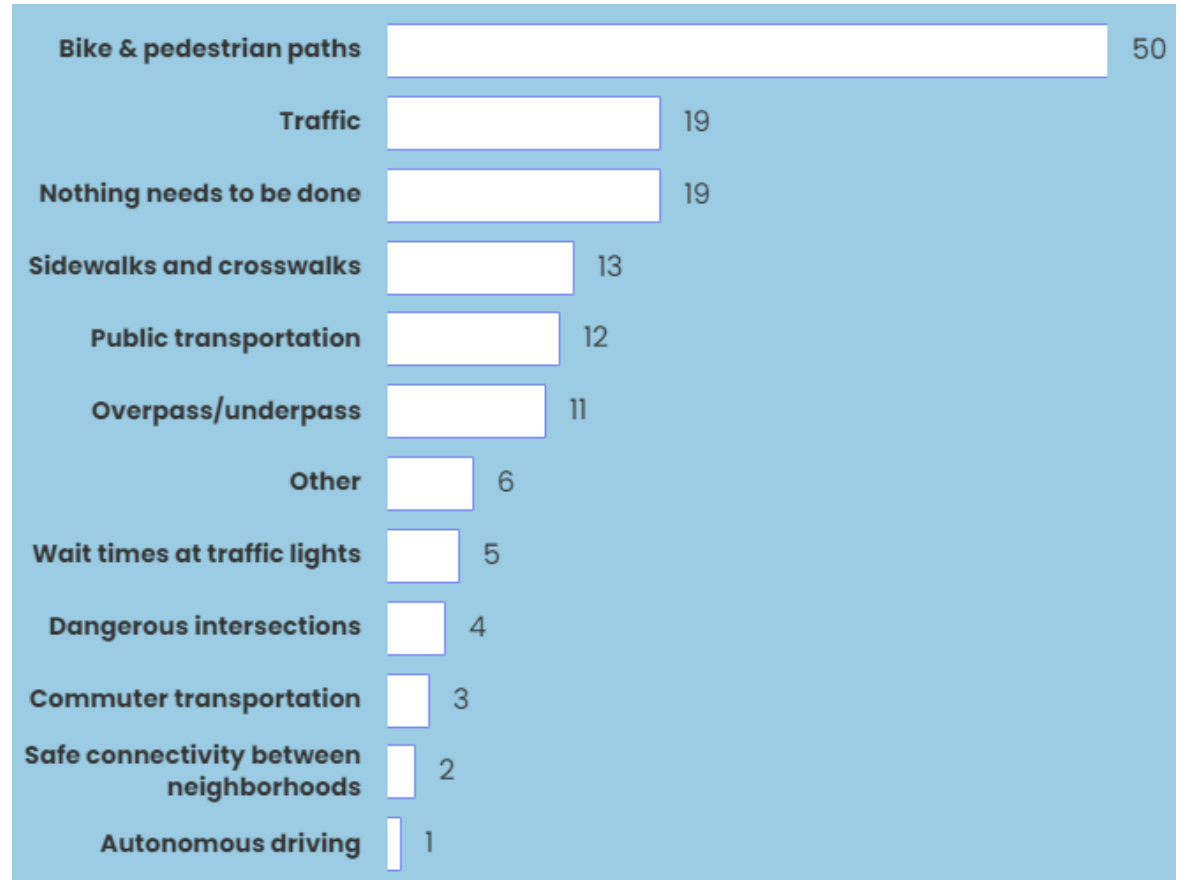


- A. Small-town atmosphere with quality shopping, services and restaurants.**
- B. Little to no change, stay the same.**
- C. No traffic problems.**
- D. Farms will surround the Town Center.**
- E. Walkable with trails, sidewalks and bike paths.**
- F. It will be community oriented and family friendly.**
- G. There will be a community center.**
- H. No retail vacancies.**
- I. A visitor/welcome center.**
- J. Increased infrastructure problems.**
- K. Affordable for young families and the working class.**
- L. Other.**

166 responses

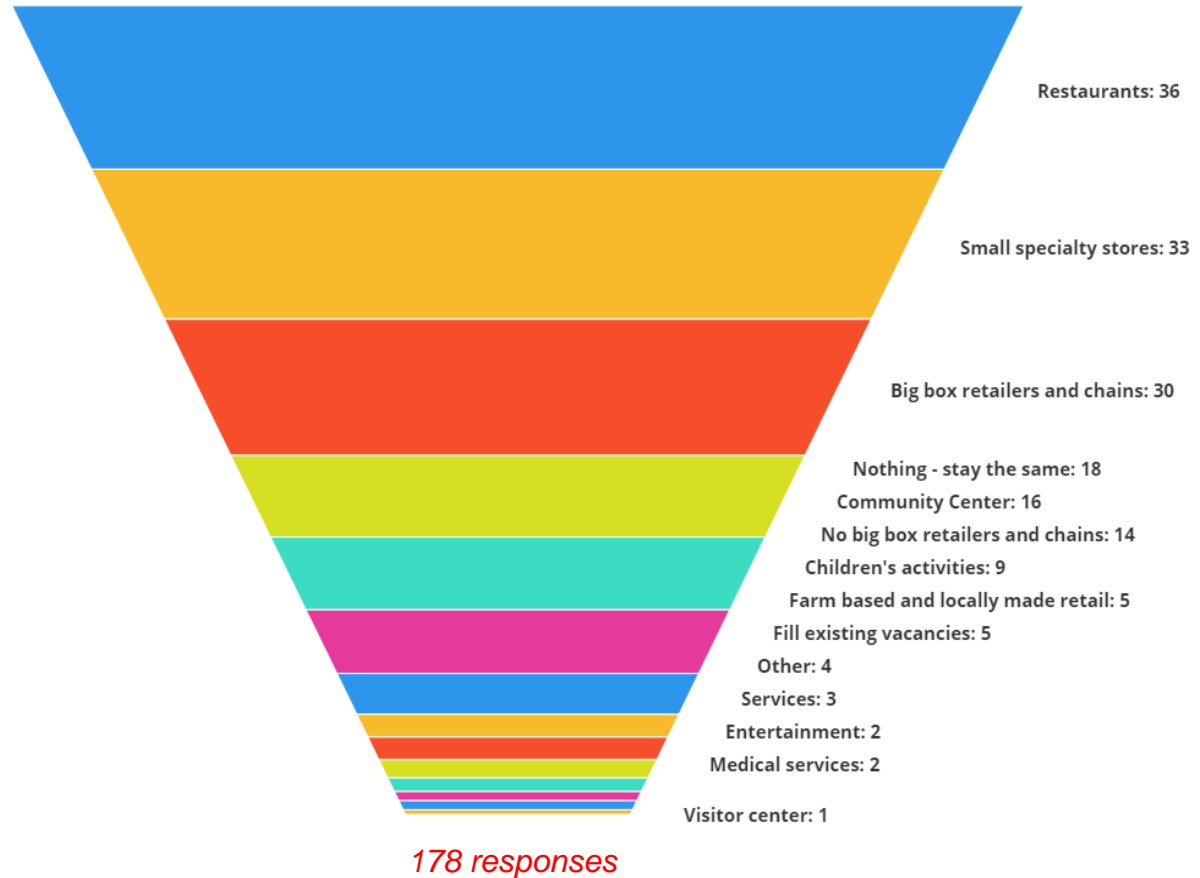


## 2. What transportation, transit, walking and/or bicycling challenges do you think should be addressed?



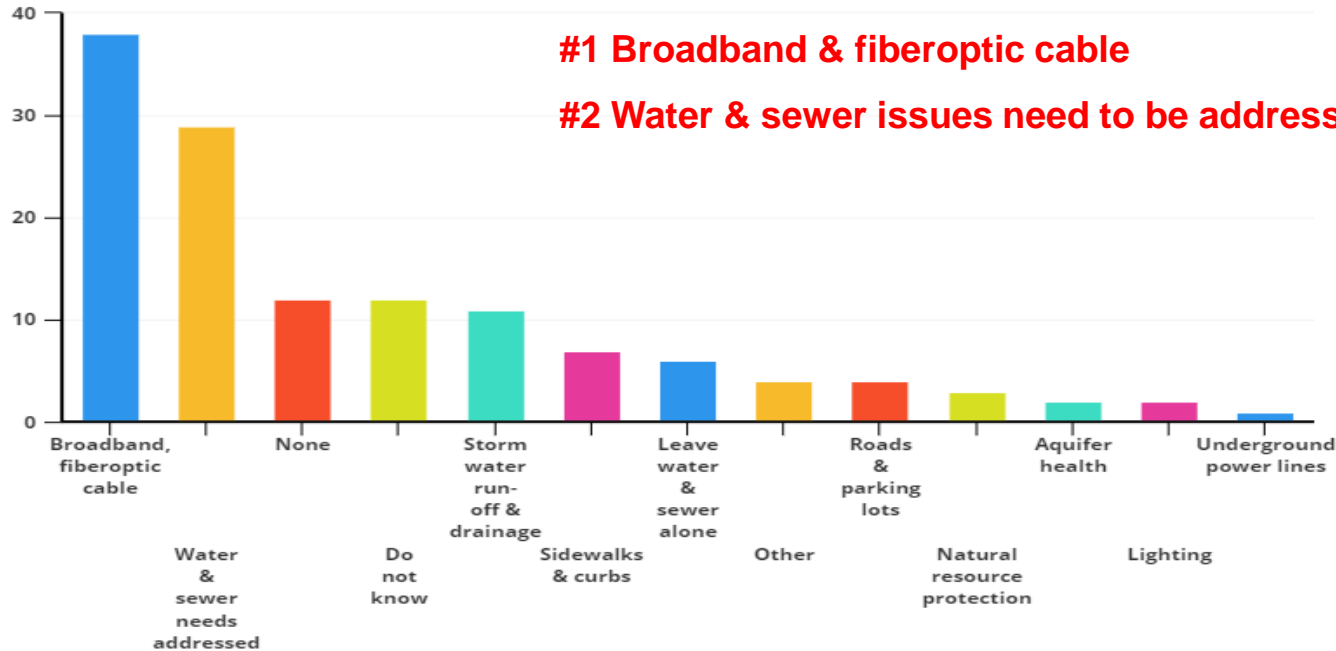
145 responses

### 3. What kind of retail stores, business/personal services and/or community facilities would you like within the Dunkirk Town Center?



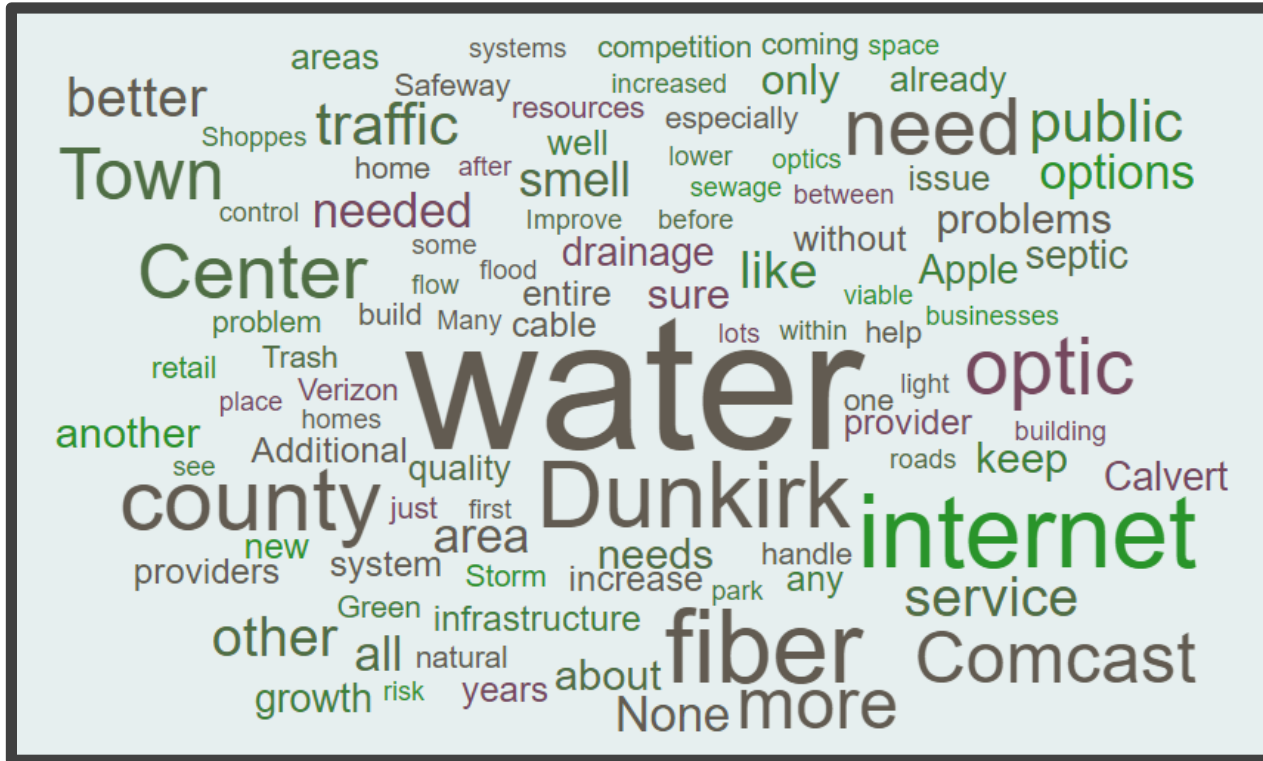


## 4. What kind of infrastructure improvements are needed in the Dunkirk Town Center and why?



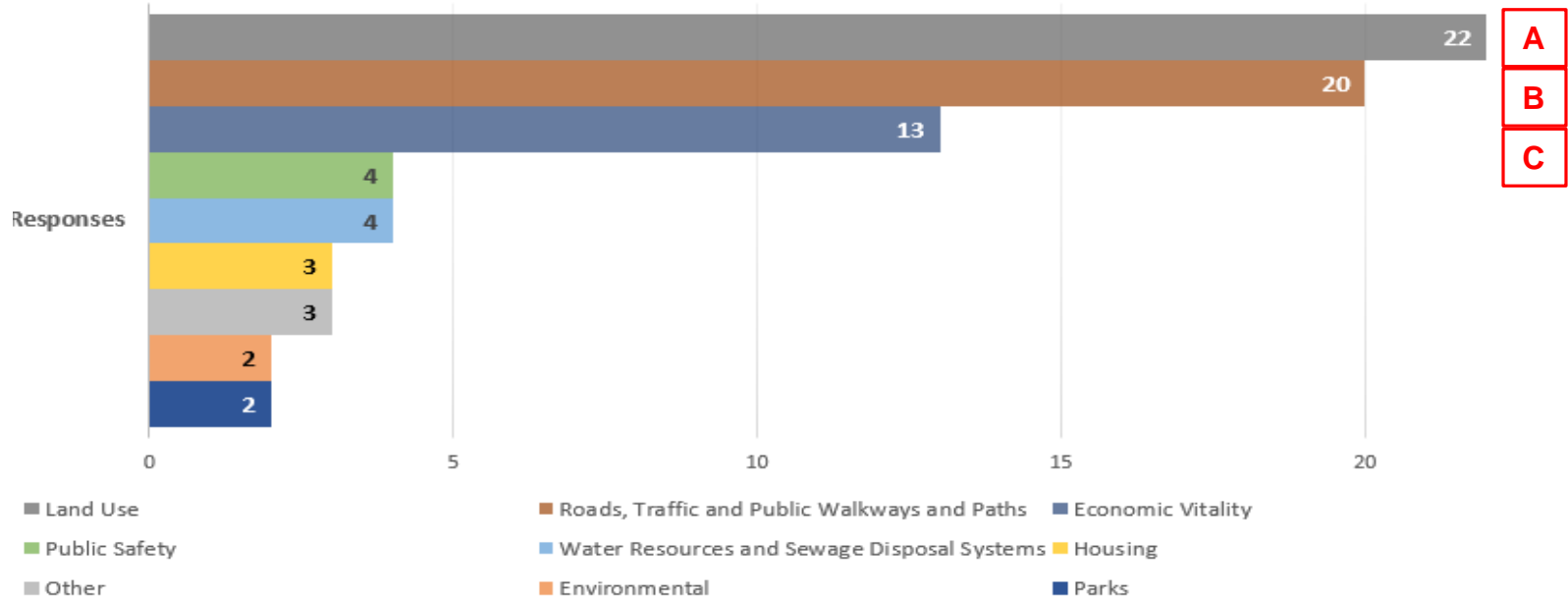
131 responses

#### 4. What kind of infrastructure improvements are needed in the Dunkirk Town Center and why?



5.

## WHAT AREA (GEOGRAPHICAL OR TOPIC) DO YOU THINK SHOULD BE FOCUSED ON IN THE NEXT WORKSHOP?



**A.** 30.2% Land Use (how to manage future growth)

**B.** 27.4% Roads, Traffic, Public Walkways and Paths

**C.** 17.8% Economic Vitality (improved shopping and dining options)

73 responses



# Update Focus Areas

The Planning Commission acknowledged staff's recommendation that the Dunkirk Town Center Master Plan Update focus areas be on:

- **Land Use (how to manage future growth)**
- **Roads, Traffic and Public Walkways**
- **Economic Vitality (improved shopping and dining options)**

These areas were selected based on the public's responses to the first survey, input from participants at the meeting on July 15, 2021, and the public's responses to questions answered in Dunkirk Survey #2.

# Dunkirk Photo Survey



- Provided an opportunity for people to offer their opinions about the visual quality of the Town Center: buildings, places, landscapes, streetscapes, etc.
- Participants were asked to submit up to 10 photos: 5 of what they like about Dunkirk Town Center and 5 of what they do not like about Dunkirk Town Center.
- The photo survey will be used as part of the Dunkirk Town Center Master Plan update.



Trees removed leaving ugly view



Patched roadway



Unkept grass and no landscaping



Unattractive gates



Smelly Pond



Unattractive pond

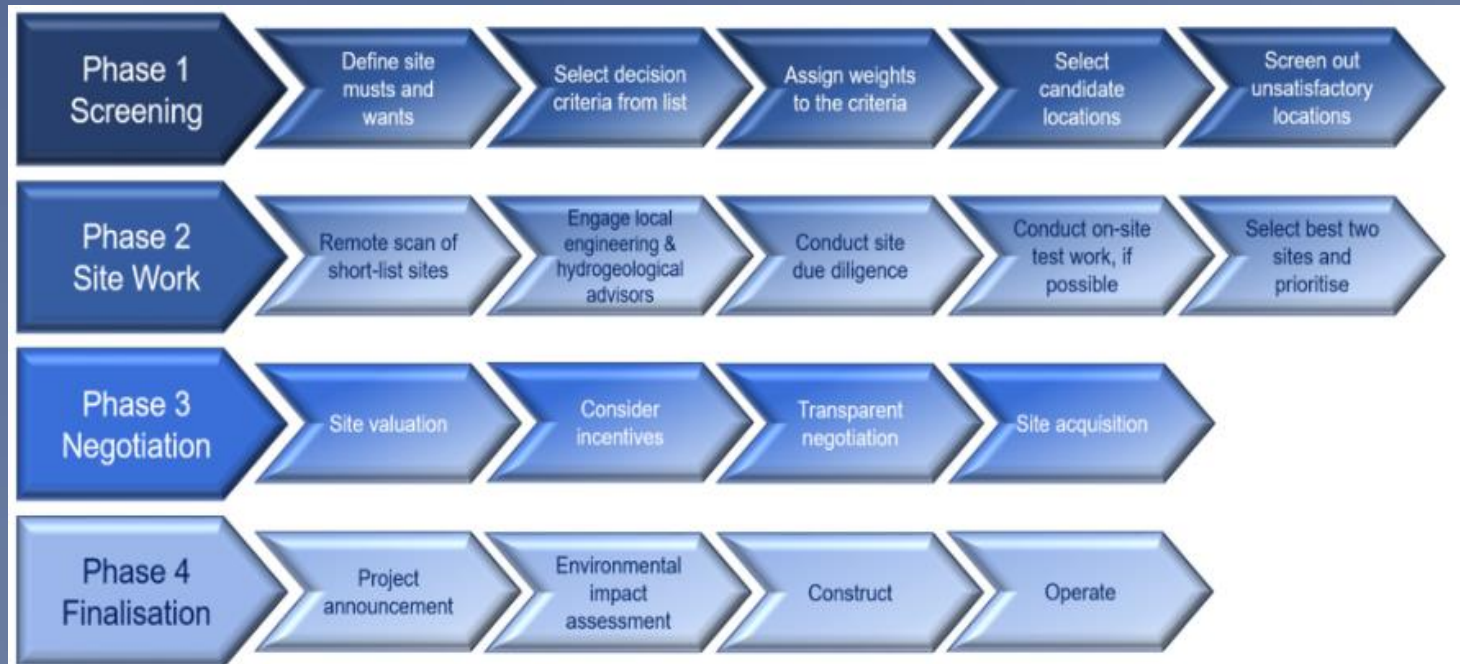
## Photo Survey Submissions

# **Economic Vitality:**

*How do businesses make  
location decisions?*

# Economic Vitality:

## How businesses make location decisions



# Economic Vitality:

## How businesses make location decisions

### What Matters Most: Site Selectors' Most Important Location Criteria

- 1 **Workforce skills**
- 2 Workforce development
- 3 Transportation infrastructure
- 4 Ease of permitting and regulatory procedures
- 5 State and local tax scheme
- 6 Right-to-work state
- 7 Utilities (cost, reliability)
- 8 Quality of life
- 9 Incentives
- 10 Legal climate (tort reform)



# Land Use / Water Resources:

*Septic Systems: How they  
work and how to care for them*

# Septic Systems: How they work and how to care for them

Andrew Lazur

Chesapeake Well and Septic Homeowner Education

University of Maryland Extension

[lazur@umd.edu](mailto:lazur@umd.edu)

# Overview of Septic Systems

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1. Septic Basics
2. Types of Systems
3. Septic Stewardship Practices

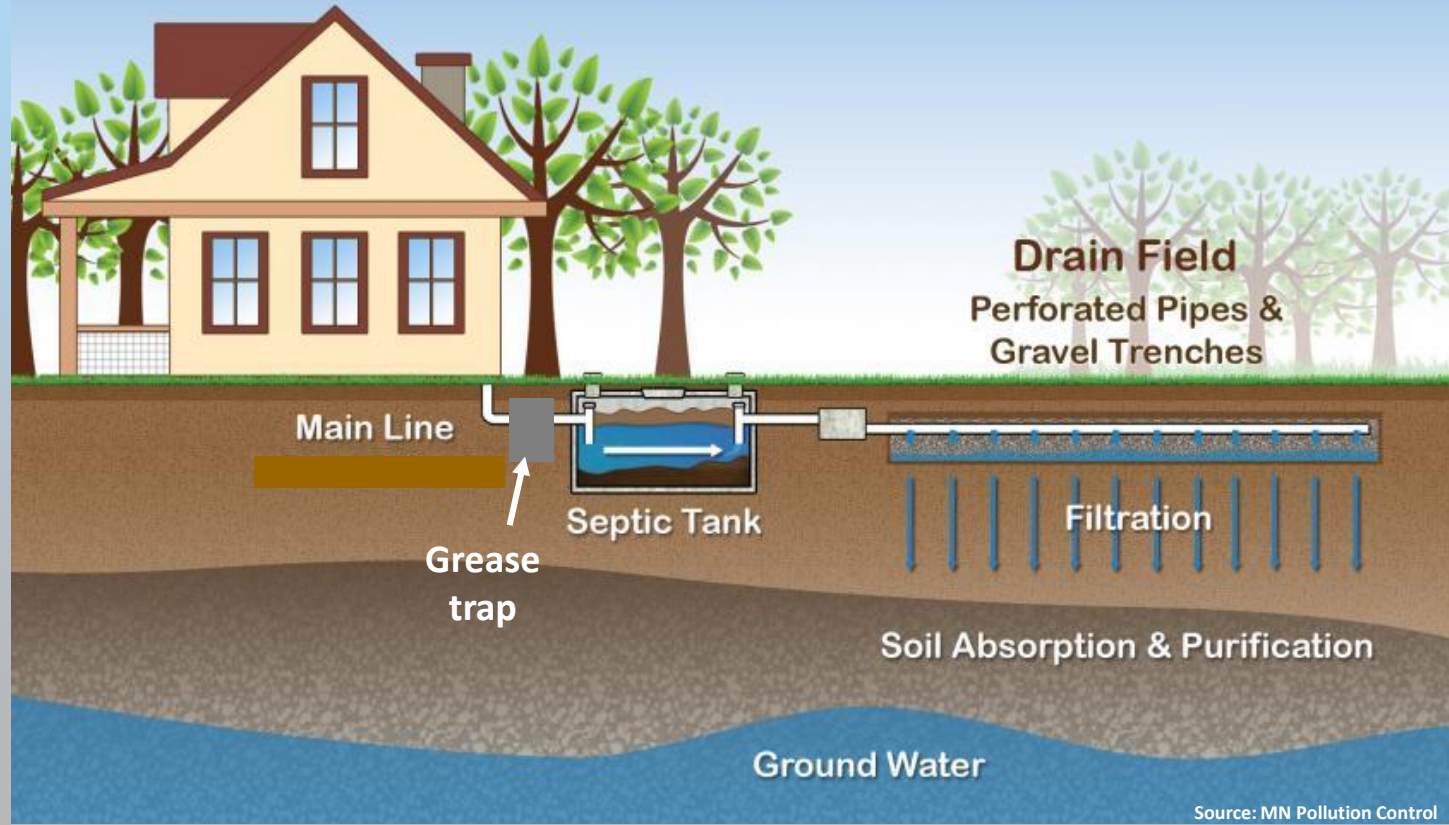


# Onsite Wastewater Treatment (Septic Systems) In Maryland



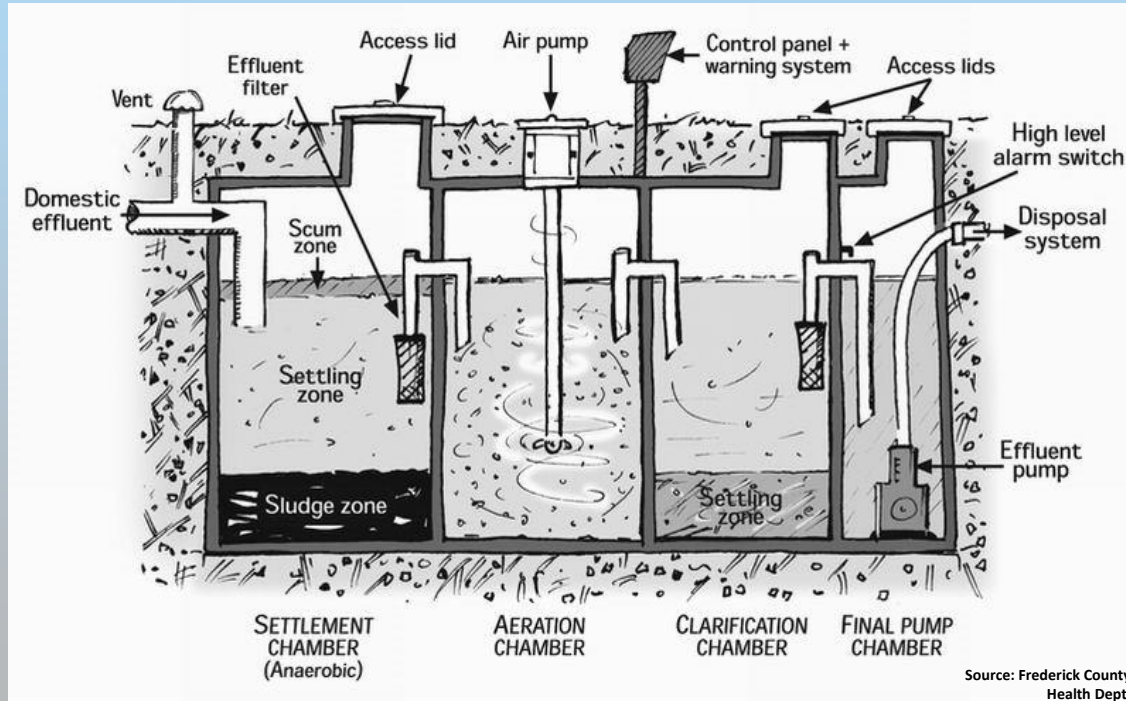
- In Maryland, 20% of the population, or 420,000 households and businesses are served by septic systems
- Properly functioning septic systems are effective in reducing nutrients, removing pathogens and are critical to basic public health and the environment.
  - Source of pathogenic bacteria (e.g. E. coli)
  - Contribute other harmful contaminants into soils and groundwater – emerging contaminants (e.g. hormones, pharmaceuticals, and household chemicals, etc.)
  - Waste strength and associated needed treatment varies depending on business type, e.g. retail, food service, etc.
  - System design is site specific
  - Life expectancy of soil treatment area or drainfield varies, but typically is 25-30 years

# Conventional Septic System





# Aerobic Treatment System – Best Available Technology (BAT)



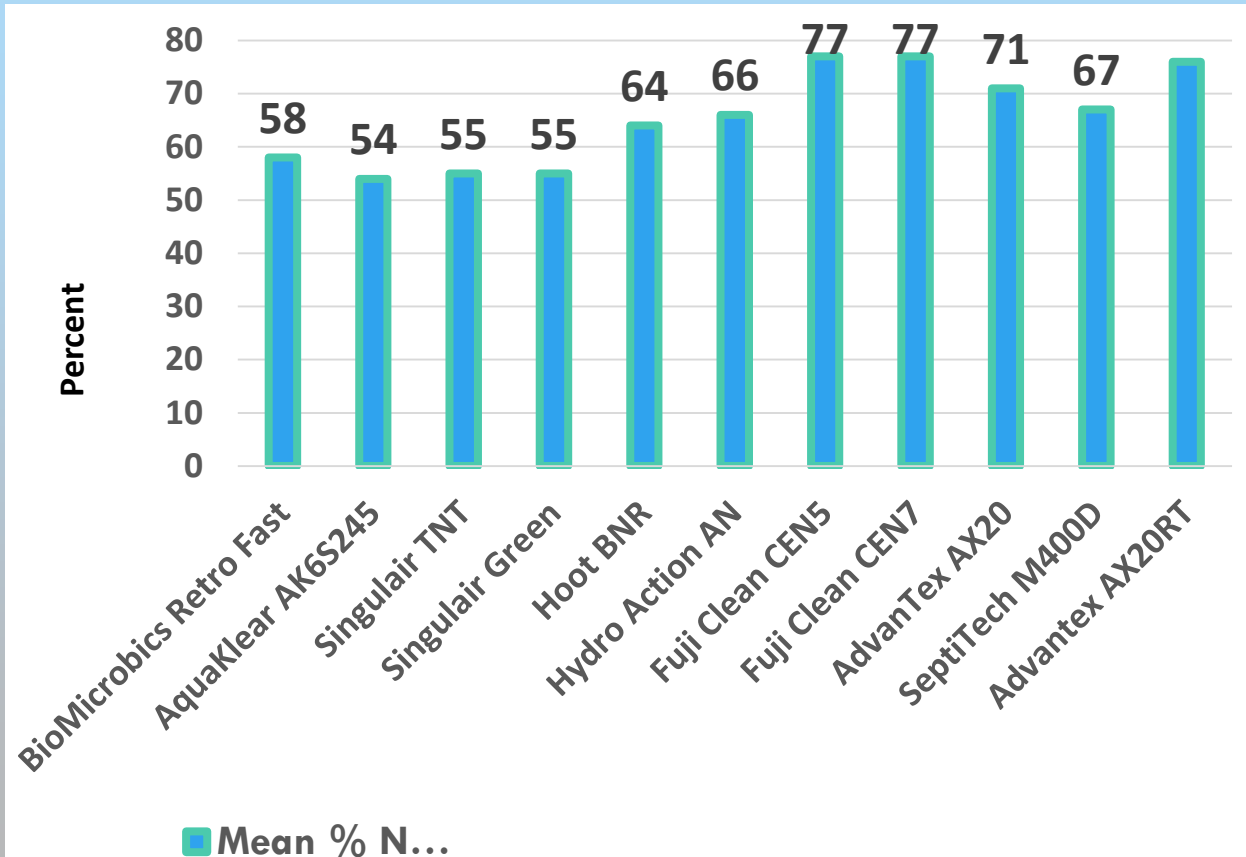
Source: Frederick County  
Health Dept.



**Clear,  
odorless  
effluent**

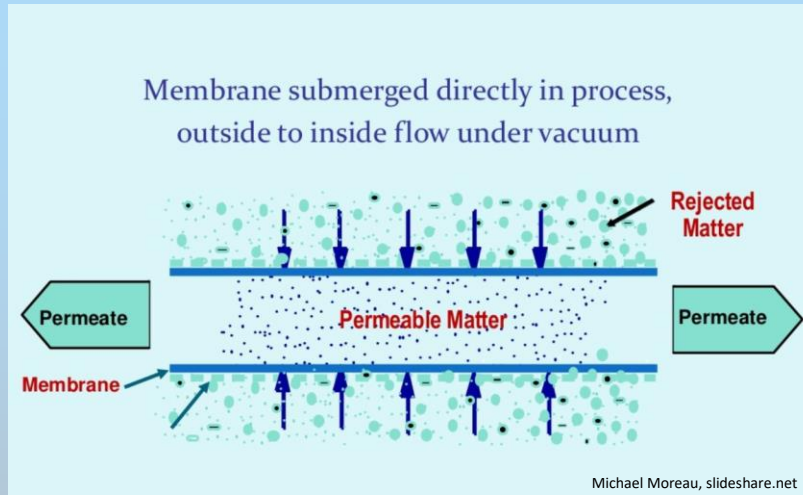


## MD BAT Units – Cost and Nitrogen Reduction

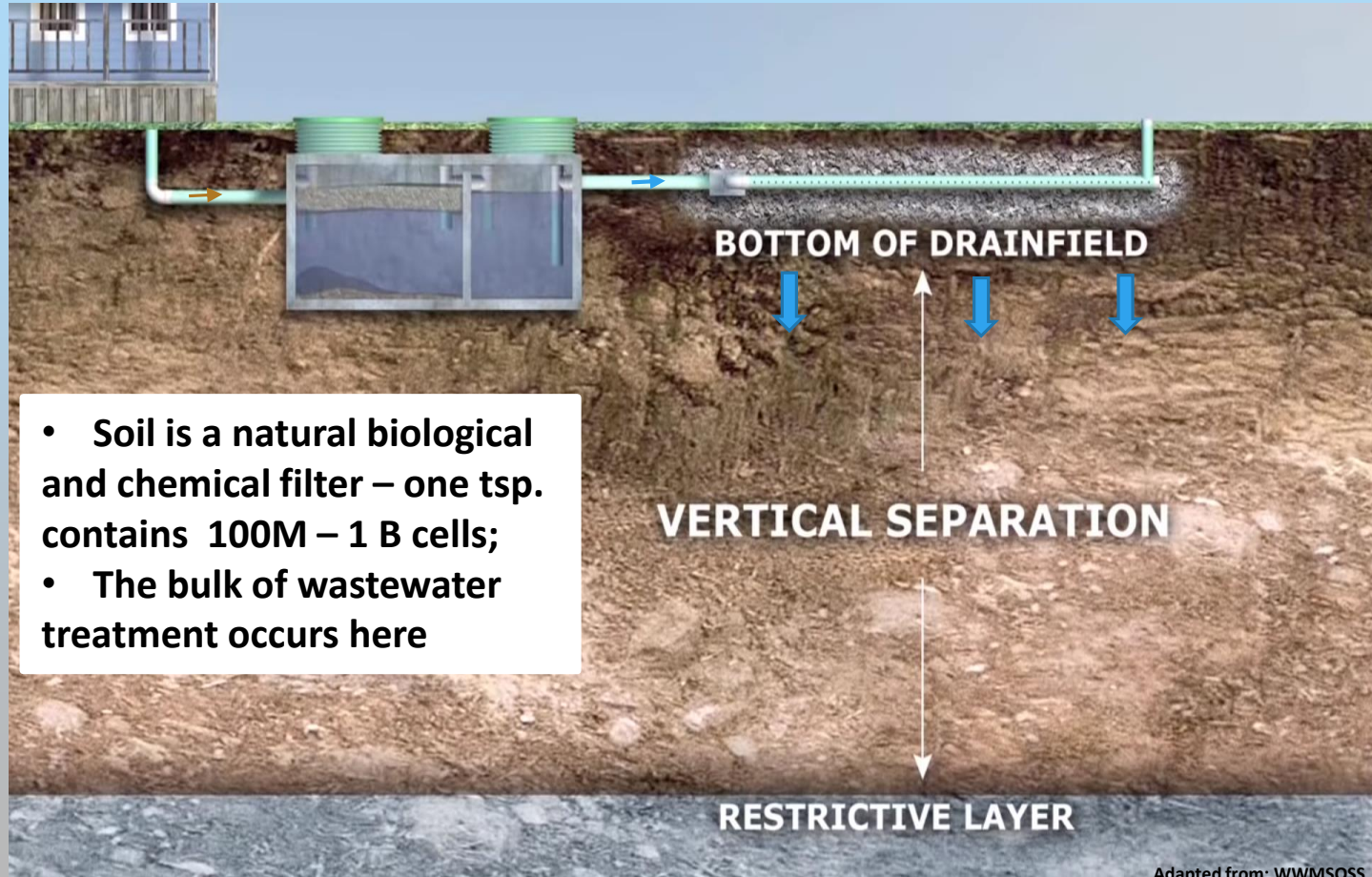


Source: MDE 2019

# Advancements in Technology - Ex: Membrane Bioreactors



# Importance of Soil in a Septic System





# Drainfields – Essential Soil Treatment



Conventional gravel trench



EZ Flow media tubes



Drip tube dispersal



Chambers



Sand mound

# Trouble Signs of Malfunctioning System

- Wet spots on lawn
- Sewage odor
- Slow draining toilets/tub
- Backup
- Alarm on BAT unit
- Intestinal illnesses



# Major Causes of Septic Malfunction

- System not designed or installed properly
  - Site/soils not suitable
- System not maintained
  - Tank pumped, filters cleaned, regular BAT service
- Daily waste flow exceeds design flow
  - Increase in occupancy
- Change in waste stream quality – food business, chemicals
- Root or organic matter clogging pipes
- Improper items flushed – sanitary napkins, grease, chemicals
- Settling of tank, piping, D-box
- Uneven flow to drainfield lines
- Drainfield compaction
  - Automobile traffic, added structure



# Septic System Maintenance Tips

1. Conserve water – fix leaks, use water saving appliances
2. Avoid garbage disposals and draining fats, oils and grease unless a grease trap is used
3. Maintain grease traps
4. Only flush toilet paper – no wipes, etc.
5. Ensure stormwater runs away from tank and drainfield
6. Don't plant trees near tank or drainfield
7. Have tank/trap pumped regularly
8. Maintain service contracts



# Resources

## **UME Well and Septic Education Program:**

<http://extension.umd.edu/well-and-septic>

## **Maryland Dept. of Environment – Onsite Systems Division:**

<https://mde.maryland.gov/programs/Water/BayRestorationFund/OnsiteDisposalSystems/Pages/OnsiteSystems.aspx>

## **County Health Septic/BRF Contacts:**

<https://mde.state.md.us/programs/Water/BayRestorationFund/OnsiteDisposalSystems/Documents/Maryland%20Contact%20Page%2004302014.pdf>

## **Calvert County Environmental Health Office:**

<https://www.calverthealth.org/community/environmentalhealthservices/index.htm>

# Land Use / Water Resources:

*What is the status of  
Dunkirk Town Center's  
environmental health?*

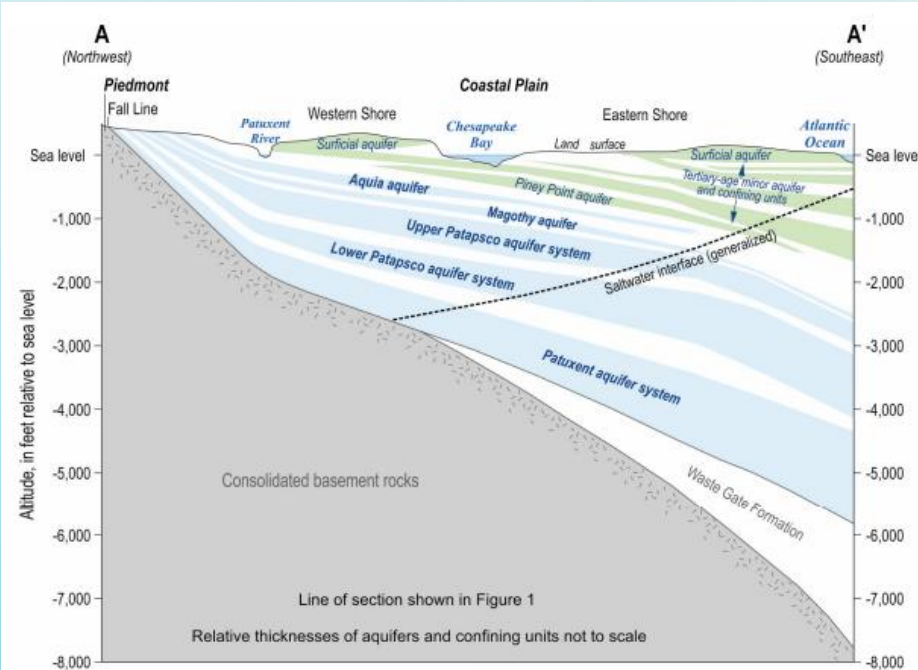


# The State of Environmental Health in Dunkirk's Town Center

A quick overview

# Environmental Health in Dunkirk

- Water Supply
- Sewage Disposal
- Food Safety

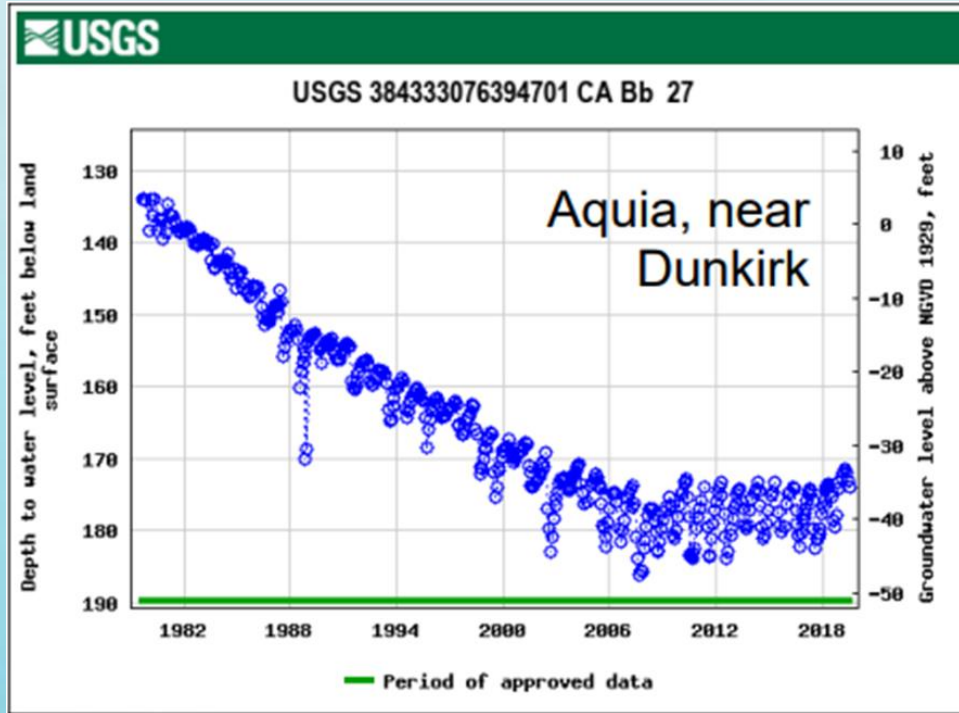


**Figure 2.** Schematic diagram of the Atlantic Coastal Plain aquifer system in Maryland. Aquifers shaded in blue are discussed in this report.

## Water Supply

Source: Maryland Geological Survey, DNR Publication No. 12-552014-712, 2014





## Water Supply

Source: USGS, from Hydrogeology and Groundwater Resources of Calvert County, Department of Public Works Water & Sewerage Division, September 24, 2019

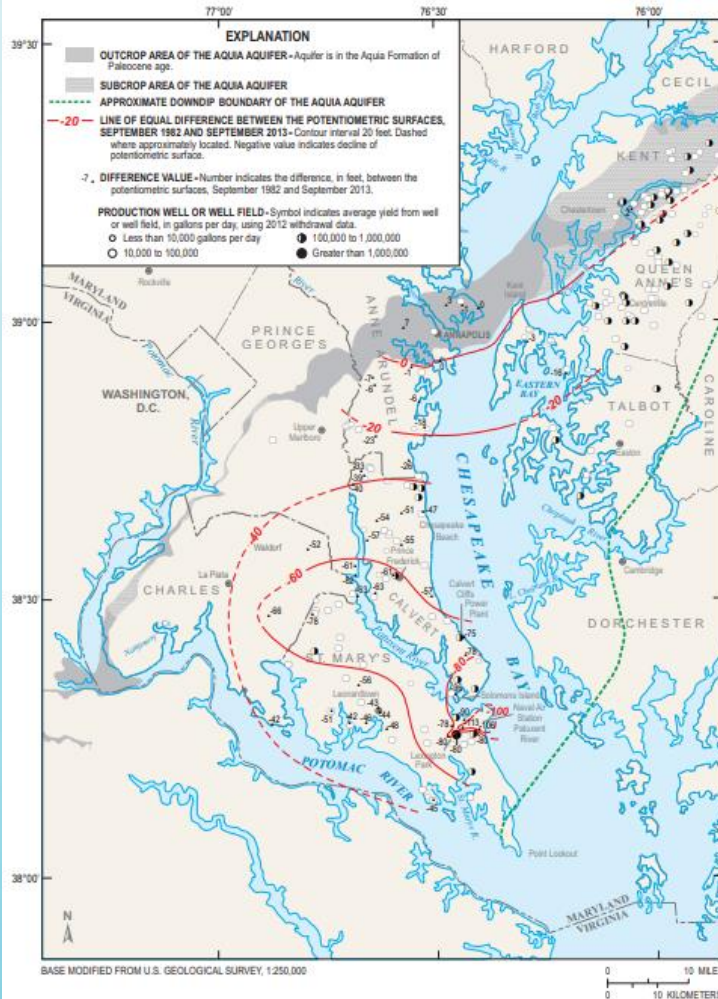


Figure 4. The difference between the potentiometric surfaces of the Aquia aquifer in Southern Maryland and Maryland's Eastern Shore, September 1982 and September 2013.

## Water Supply

Source: Maryland Geological Survey, DNR  
Publication No. 12-552014-712, 2014

# Sewage Disposal

- All sewage disposal systems in Dunkirk Town Center are private systems. (No community or public infrastructure).
- All development in the Town Center is served by On-site sewage disposal systems or shared facilities and nearly all development is Commercial.
- Several commercial on-site sewage disposal systems and a few shared facilities have failed over the past 5-10 years.
- Replacement areas are severely limited.
- Many on-site sewage disposal systems produce high strength waste that requires additional treatment.



# Food Safety

- A diverse and ample number of food service facilities are in the Town Center.
- Mostly dominated by chain restaurants.
- Overall high level of compliance with Food Safety regulations.
- Owners, managers and operators demonstrate substantial knowledge of Food Safety principles.




# Outlook for the future



# Transportation:

*What is Calvert County doing  
to improve walking and  
bicycling in the Dunkirk Town  
Center and vicinity?*





51



The Kim Lamphier Bikeways Network Program provides grant support for a wide range of bicycle network development activities. The program supports projects that maximize bicycle access, fill missing links in the state's bicycle network, and enhance last-mile connections to work, school, shopping and transit. The Bikeways Program seeks to leverage past investments in bicycle facilities, complement existing state, local, and federal programs, and promote biking as a fun, healthy transportation mode.

# DUNKIRK TOWN CENTER PEDESTRIAN / BIKEWAY PATHS STUDY



# Questions & Answers

**Written questions submitted in advance**

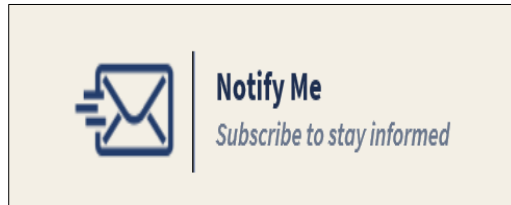
**Invitation to submit written questions during the meeting**

# Next Steps



# To Learn about Events & Status

- Visit [www.CalvertCountyMd.gov/DunkirkTownCenter](http://www.CalvertCountyMd.gov/DunkirkTownCenter)
- Sign up to receive email messages: click on "Notify Me" under News Flash and select "Planning & Zoning"
- Follow on Facebook





# Resources

Find information on Calvert County Government services online at [www.CalvertCountyMd.gov](http://www.CalvertCountyMd.gov).

Stay up to date with Calvert County Government on Facebook at [www.facebook.com/CalvertCountyMd](http://www.facebook.com/CalvertCountyMd).



# Thank You!

Questions and comments may be emailed to  
[TownCenterUpdate@calvertcountymd.gov](mailto:TownCenterUpdate@calvertcountymd.gov)

or

call 410-535-1600, ext. 2356

during normal operating hours of 8:30 a.m. to 4:30 p.m.